

# Mercury Marine®

## Computer Diagnostic System

Launch your dealership into the next generation in marine diagnostics! Help improve diagnostics time, repair accuracy and your bottom line.



**MERCURY**  
Outboards

**MERCURY**  
Racing

**MERCURY**  
MerCruiser

**MERCURY**  
SmartCraft

**MERCURY**  
Jet Drives



**SPX** SERVICE  
SOLUTIONS

1-800-345-2233

## In a Portable PC!

**The Computer Diagnostic System (CDS) is designed for use by Mercury Marine dealership technicians. The CDS Software runs on a PC platform using a Microsoft® Windows®-based user interface, and is designed to reduce the diagnostic time identifying the root causes of engine management problems. The new CDS diagnostic tool can significantly reduce diagnostic time and improve repair accuracy, resulting in more profitability to your service department. The less time a boat is on land for repairs, the higher your customer satisfaction index.**

## CDS Software Features/Benefits

MERCURY V-100 (V-100) (V-10000) and UP P-0000

**MERCURY**

LINE DATA ITEM LIST

Description	Value	Units
Engine Speed	550	RPM
TPS 1	0.381	Volts
Throttle Position	0.00	%
Manifold Coolant Temperature	33	C
Railway	10.33	Volts
Pressure 1	0.00	Volts
Manifold Pressure	0.00	kPa
Port Coolant Temperature	31	C
Charge Temperature	21	C
Compressor Temperature	27	C
Total PFC	0.14	
Total Oil Shot Count Since Key Up	0	Shot
Rail Oil ADC Reading	585	ADC
Fuel Level	1000	

Line Data Items

**Graphical User Interface** – The user friendly Graphical User Interface (GUI) was developed to allow the technician fast and easy access to any part of the software. Any portion of the software can be easily accessed with a couple of clicks of the mouse.

Mercury 4.16.20.01 GUI Screenshot and User Feedback

The screenshot displays the Mercury 4.16.20.01 GUI, which is a diagnostic tool. The interface is divided into several sections:

- Header:** Displays the version number "Mercury 4.16.20.01 GUI Screenshot and User Feedback".
- Navigation Bar:** Contains icons for various diagnostic functions: Diagnostic Procedure (selected), Wiring, Picture, and a set of icons for different vehicle components (engine, transmission, suspension, etc.).
- Main Content Area:**
  - Diagnostic Procedure:** Shows the selected procedure, "Set Multimeter to DC Volts".
  - Test Lead Connections:** Provides instructions for using the multimeter:
    - Red Lead:** MAP (C10) HARNESS terminal "C" (PPL/VEL wire)
    - Use gray pin probe (from kit 516204)**
    - Black Lead:** Block Ground
  - Multimeter Reading:** A large digital display shows "4.97" Volts DC.
- Footer:** Contains navigation buttons: "Cancel", "<Back", "Freeze", and "Next>".

**Pinpoint Diagnostics** – The current method of diagnostics requires the technician to follow the Service Manual flow chart. This method can result in time wasted searching for the appropriate manual and following complex flow diagrams. CDS will save the technician time by leading the user through the flow chart electronically with a series of questions and tasks until the root problem is identified. Pinpoint diagnostics also enables lesser-skilled technicians to take on more complex jobs without the need for additional training.

## Order your Computer Diagnostic System Kit Today!

Pick the PC and CDS Software kit that best suits your dealership. CDS and the computer of your choice will be delivered together, completely configured and ready to use. In addition to the computer, the **Deluxe Kits** include a multimeter, test probe kit and numerous cables and adapters all packaged inside a hard storage case. The **Basic Kits** include a soft storage case with strap.

### Benefits to Ordering Now:

- **Newer technicians will begin to familiarize themselves with the CDS operation and capabilities; including the Windows-based graphical user interface (GUI) with various screen displays**
- **Start reducing diagnostic time and begin to increase productivity**
- **Improve service department profitability**

## How to Order

Complete ordering instructions and selections are on the enclosed order form. You can FAX your completed form to 1-800-578-7375

or place an online order at:  
**[www.mercurymarinecds.spx.com](http://www.mercurymarinecds.spx.com)**

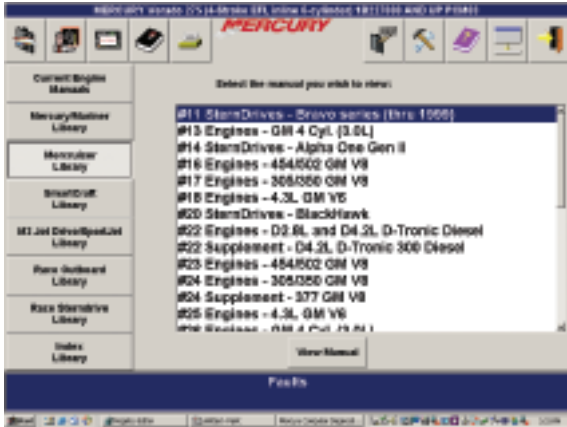
or Mail your form to:  
SPX CORPORATION  
28635 Mound Rd.  
Warren, MI 48092

### Payment Options

- **Credit Card – Visa, MasterCard, American Express & Discover**
- **Financing Packages – Affordable financing rates are available through a third party leasing company. Credit application forms are included in this packet.**

### Product Warranty

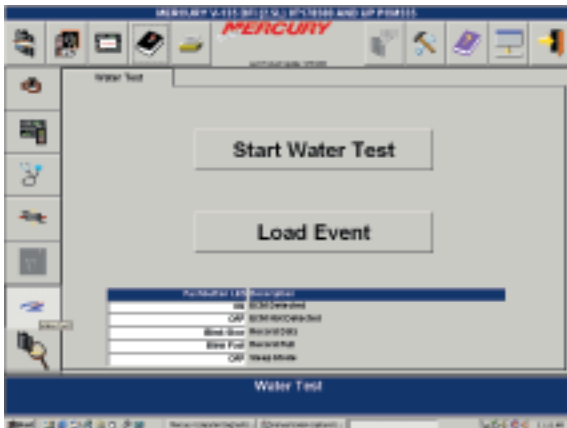
Warranty of the PC's is covered under the manufacturers warranty. SPX manufactured product is warranted for 36-months from date of delivery. For specific warranty terms & conditions see your kit documentation or visit [www.mercurymarinecds.spx.com](http://www.mercurymarinecds.spx.com).



**Service Manuals** – Users can reference many of the Mercury Marine Service Manuals electronically, eliminating the need for paper manuals.

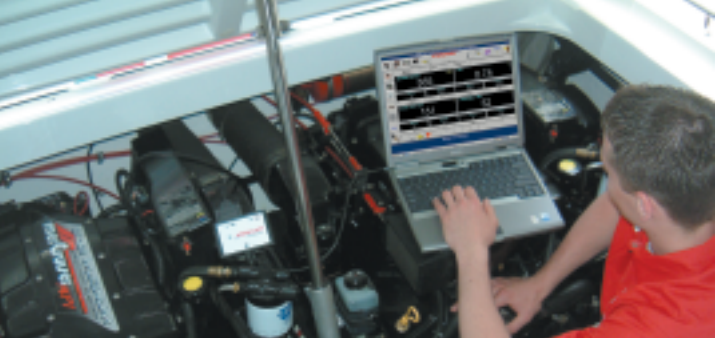
**Internet Updates** – The CDS software will automatically be updated with the latest diagnostic procedures. Users will be required to periodically connect to the Internet to receive the latest information via web-sync.

**Feedback** – Diagnostic information captured by CDS can be recorded and saved to provide feedback to your customers or sent to the factory for evaluation.



**Water Test** – This feature allows the technician to take the CDS SmartComms™ interface module on a water test, record an event and play it back at a later time for analysis. The water test will significantly reduce the amount of time that is required to solve intermittent service complaints by your customers.





### MM-46248 Panasonic Basic Kit

- Panasonic CF19 Toughbook Laptop with external DVD-ROM drive
- CDS Diagnostic Software
- SmartComms Interface Box
- Laptop Keyboard Cover
- DB25 Cable
- Soft Storage Case
- Set-Up Guide
- Tech Support



### MM-46943 Panasonic Deluxe Kit

- Panasonic CF19 Toughbook Laptop with external DVD-ROM drive
- CDS Diagnostic Software
- SmartComms Interface Box
- PCMCIA Card
- Laptop Keyboard Cover
- Breakout Box
- Multimeter
- Test Probe Kit
- Water Test Trigger Cable
- AC/DC Adapter
- DC/DC Adapter
- DB25 Cable
- Hard Storage Case
- Set-Up Guide
- Tech Support



### MM-49066 Dell Basic Kit

- Dell™ Latitude™ D630 Notebook with DVD-ROM drive
- CDS Diagnostic Software
- SmartComms Interface Box
- Notebook Keyboard Cover
- DB25 Cable
- Soft Storage Case
- Set-Up Guide
- Tech Support



### MM-49067 Dell Deluxe Kit

- Dell™ Latitude™ D630 Notebook with DVD-ROM drive
- CDS Diagnostic Software
- SmartComms Interface Box
- PCMCIA Card
- Notebook Keyboard Cover
- Breakout Box
- Multimeter
- Test Probe Kit
- Water Test Trigger Cable
- AC/DC Adapter
- DC/DC Adapter
- DB25 Cable
- Hard Storage Case
- Set-Up Guide
- Tech Support



### MM-46941 Basic Kit

- CDS Diagnostic Software
- SmartComms Interface Box
- DB25 Cable
- Set-Up Guide
- Tech Support

Please contact 1-800-345-2233 for additional information

#### Minimum PC Specifications:

900 MHz Pentium Processor, USB port, Windows® XP Pro with SP2 Operating System, 10/100 Ethernet, PCMCIA slot, 512MB Ram, DVD Drive, 60 GB Hard Drive, Integrated 9 Pin Serial Port



## Mercury Marine CDS Kit Accessory Matrix

The following outlines the accessories and service parts available for CDS. This is not a complete Bill of Materials for the kit, but rather a list of items that may be desirable for addition to a Basic kit, or as a service item in the future.

Description	Item Part Number	MM-46943 Panasonic Deluxe Kit	MM-49067 Dell Deluxe Kit	MM-46248 Panasonic Basic Kit	MM-49066 Dell Basic Kit	MM-46941 Basic Kit
SmartComms Interface Box	MM-46944	X	X	X	X	X
DB25-DB25 10ft Extension Cable	MM-47091	X	X	X	X	X
Laptop Keyboard Cover - Panasonic CF18/CF19	MM-47094	X		X		
Notebook Keyboard Cover - Dell™ Latitude™ D630	MM-49127		X		X	
Multimeter	MM-46950	X	X			
PCMCIA Card	MM-47095	X	X			
Breakout Box	MM-46225	X	X			
Test Probe Kit	MM-46523	X	X			
Loaded Volts Test Lead (incl. Alligator Clips)	MM-47096	X	X			
Water Test Trigger Cable	MM-46952	X	X			
AC/DC Adapter (for SmartComms)	MM-46953	X	X			
DC/DC Adapter (Panasonic CF18/CF19)	MM-46361	X				
External DVD Drive	MM-47093	X		X		
DC/DC Adapter (Dell™ Latitude™ D630)	MM-49128		X			
Softside Storage Case	MM-47090			X	X	
Hard Storage Case (Panasonic CF18/CF19)	MM-46947-PAN	X				
Hard Storage Case (Dell™ Latitude™ D630 )	MM-49067-CASE		X			

# Portable PC Options

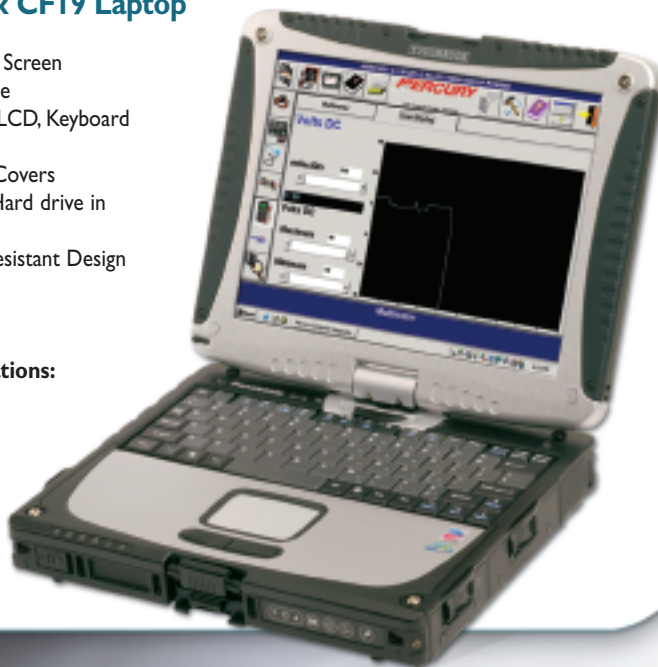
Choose from two  
Mercury Marine  
approved portable  
PC systems, preloaded  
with CDS Software:  
The Panasonic®  
Toughbook® CF19  
Ruggedized Laptop  
Computer, or the  
Dell™ Latitude™  
D630 Notebook.

## Panasonic Toughbook CF19 Laptop

- Easy to use Touch Screen
- Sun Light Readable Hi-Bright Screen
- Rugged Magnesium Alloy Case
- Moisture and Dust resistant LCD, Keyboard and Touchpad
- Sealed Port and Connector Covers
- Shock-mounted, removable Hard drive in Stainless Steel Case
- Vibration and Drop-shock Resistant Design
- Rugged Hinges
- 3 Year Warranty

### Laptop Minimum Specifications:

- 1.06GHz Intel® Core Duo Processor (Centrino)
- 512MB RAM
- 80 GB Hard Drive
- WIN® XP Pro
- Bluetooth
- 56K Modem
- External DVD-ROM Drive



## Dell™ Latitude™ D630 Notebook

- 14.1 Inch Wide-screen Display
- Full magnesium-alloy construction
- 3Yr Gold Technical Support & CompleteCare Accidental Damage Service\*<sup>1</sup>

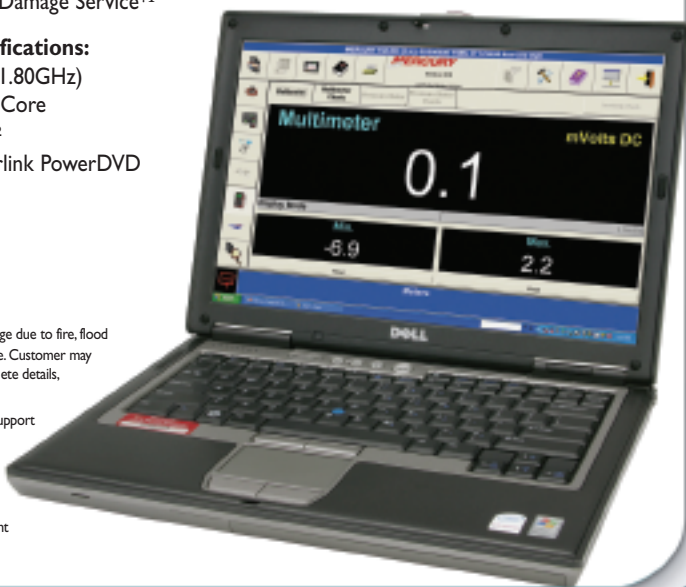
### Notebook Minimum Specifications:

- Intel® Core™ 2 Duo T7100 (1.80GHz) 2M L2 Cache, 800MHz Dual Core
- 1.0GB, DDR2-667 SDRAM\*<sup>2</sup>
- 24X CD-RW/DVD w/ Cyberlink PowerDVD
- Windows® XP Pro, SP2
- 60GB\*<sup>3</sup> Hard Drive
- Wireless LAN (802.11)
- 56K Modem

\*<sup>1</sup> CompleteCare excludes theft, loss, and damage due to fire, flood or other acts of nature or intentional damage. Customer may be required to return unit to Dell. For complete details, visit [www.dell.com/servicecontracts](http://www.dell.com/servicecontracts).

\*<sup>2</sup> Significant system memory may be used to support graphics, depending on system memory size and other factors.

\*<sup>3</sup> GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.



# CDS Accessories

## MM-48976 Diagnostic Cart

Enhance technician productivity and efficiency by adding this option to your CDS diagnostic tool! Designed for use with CDS, this cart allows you to have a secure, portable and professional station for technicians to use throughout the service area.

- Keeps the CDS secure using a Kensington lock system built into the laptop
- Positions the PC at a convenient/comfortable working height
- Allows technicians to have a clean work area to perform service diagnostics
- Large drawer provides storage for cables, accessories and support materials
- Platform holds wireless printer
- Cart comes assembled. Includes 4 heavy-duty casters, front two with locking brake; 5-outlet power strip on back with 15' cord. Unit is dark gray with silver handle.
- Measures 26.5" w x 27.5" d x 47" h



**SPX** **SERVICE SOLUTIONS**  
**1-800-345-2233**

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